

WHAT IS CLAIMED IS:

1 1. An endoscope comprising:
2 an elongated member having a longitudinal axis and a passage extending from a
3 proximal end to a distal end of the elongated member;
4 an imaging probe positioned at the distal end of the elongated member and
5 including:
6 an objective lens;
7 an imager positioned to receive an image from the objective lens; and
8 a light source for illuminating a target
9 a pivot mechanism mechanically coupled to the imaging probe;
10 an actuating assembly extending through the passage of the elongated member
11 and coupled to the pivoting mechanism, wherein upon actuation of the actuating mechanism,
12 the pivot mechanism rotates the imaging probe relative to a point at the distal end of the
13 elongated member.

1 2. The endoscope of claim 1 wherein the pivoting mechanism includes an arm
2 that swivels about the point.

1 3. The endoscope of claim 1 wherein the actuating assembly includes a chain
2 located at the distal end of the elongated member and a sprocket is coupled to the chain.

1 4. The endoscope of claim 1 wherein the actuating assembly includes a push rod.

1 5. The endoscope of claim 4 wherein the push rod assembly includes a pinion and
2 a rack, the rack coupled to a pinion and extending substantially parallel with the longitudinal
3 axis of the elongated member.

1 6. The endoscope of claim 1 wherein the actuating mechanism includes a
2 rotatable ring positioned at the proximal end of the elongated member.

1 7. The endoscope of claim 1 wherein the elongated member includes a conduit
2 having a first port at the proximal end of the elongated member and attached to a fluid source

3 and a second port at the distal end of the elongated member and positioned to discharge fluid
4 on the objective lens.

1 8. The endoscope of claim 7 wherein the conduit further comprising a third port
2 at the proximal end of the elongated member and connected to an air source.

1 9. The endoscope of claim 1 wherein the imaging probe further comprises a
2 transmitter and a first power source electrically connected to the transmitter.

1 10. The endoscope of claim 9 further comprising a transceiver located at the
2 proximal end of the elongated member that receives signals from the transmitter and
3 transmits the signals to a receiver that is external to the endoscope.

1 11. The endoscope of claim 10 further comprising a second power source
2 positioned at the proximal end of the elongated member and electrically connected to the
3 transceiver.

1 12. The endoscope of claim 1 wherein the imaging probe is configured to rotate
2 about the longitudinal axis of the elongated member relative to a stationary handle at the
3 proximal end of the elongated member.

1 13. The endoscope of claim 12 further comprising an angle position sensor
2 configured to provide information to a camera control unit to maintain a right side up image
3 while the imaging probe rotates about the longitudinal axis.

1 14. An endoscope comprising:
2 an elongated member having a longitudinal axis and a passage extending from a
3 proximal end to a distal end of the elongated member;
4 an imaging probe positioned at the distal end of the elongated member, the
5 imaging probe including:
6 an objective lens;

7 an imager positioned to receive an image from the objective lens;
8 a transmitter electrically connected to the imager;
9 a light source for illuminating a target; and
10 a first power source for supplying power to the transmitter and the light
11 source.

1 15. The endoscope of claim 14 further comprising a transceiver located at the
2 proximal end of the elongated member, the transceiver receiving signals from the transmitter
3 and transmitting the signals to a receiver external to the endoscope.

1 16. The endoscope of claim 15 further comprising a second power source
2 positioned at the proximal end of the elongated member and electrically connected to the
3 transceiver.

1 17. The endoscope of claim 14 further comprising:
2 a pivot mechanism mechanically coupled to the imaging probe; and
3 an actuating assembly extending through the passage of the elongated member
4 and coupled to the pivoting mechanism, wherein upon actuation of the actuating mechanism,
5 the pivot mechanism rotates the imaging probe relative to a point at the distal end of the
6 elongated member.

1 18. The endoscope of claim 17 wherein the pivoting mechanism includes an arm
2 that swivels about the point.

1 19. The endoscope of claim 17 wherein the actuating assembly includes a chain
2 located at the distal end of the elongated member and a sprocket is coupled to the chain.

1 20. The endoscope of claim 19 wherein the actuating assembly includes a push
2 rod.

1 21. The endoscope of claim 20 wherein the push rod assembly includes a pinion
2 and a rack, the rack coupled to a pinion and extending substantially parallel with the
3 longitudinal axis of the elongated member.

1 22. The endoscope of claim 17 wherein the actuating mechanism includes a
2 rotatable ring positioned at the proximal end of the elongated member.

1 23. The endoscope of claim 14 wherein the elongated member includes a conduit
2 having a first port at the proximal end of the elongated member and attached to a fluid source
3 and a second port at the distal end of the elongated member and positioned to discharge fluid
4 on the objective lens.

1 24. The endoscope of claim 23 wherein the conduit further comprising a third
2 port at the proximal end of the elongated member and connected to an air source.

1 25. The endoscope of claim 14 wherein the imaging probe is configured to rotate
2 about the longitudinal axis of the elongated member relative to a stationary handle located at
3 the proximal end of the elongated member.

1 26. The endoscope of claim 25 further comprising an angle position sensor
2 configured to provide information to a camera control unit to maintain a right side up image
3 while the imaging probe rotates about the longitudinal axis.